

Abstract of the Disclosure

An apparatus and method for insertion of medical devices is disclosed. One embodiment includes an access tube with a retention portion disposed at a distal end. The retention portion is reconfigurable between first and second configurations of reduced and increased lateral extent. A trocar can be moveably disposed within the access tube, which can be movably disposed within an overtube. One method of the invention includes inserting the trocar and access tube through a patient's body wall where the retention portion is configured from a reduced to an increased lateral extent. An overtube can be inserted around the access tube through the body wall where the retention portion can be received through a slot defined by the overtube. The retention portion can be returned to reduced lateral extent. The access tube can be removed and the medical device can be inserted within the overtube.

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(12) United States Patent
Elbert et al.**(10) Patent No.: US 6,743,207 B2**
(45) Date of Patent: Jun. 1, 2004**(54) APPARATUS AND METHOD FOR THE
INSERTION OF A MEDICAL DEVICE****(75) Inventors:** Linda D. Elbert, Bloomington, IN
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Grove, MN (US)**(*) Notice:** Subject to any disclaimer, the term of this
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U.S.C. 154(b) by 282 days.**(21) Appl. No.: 09/837,481****(22) Filed: Apr. 19, 2001****(65) Prior Publication Data**

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606/185****(58) Field of Search 604/104-107,
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185, 190, 191, 198****(56) References Cited****U.S. PATENT DOCUMENTS**

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An apparatus and method for use in the percutaneous insertion of medical devices is disclosed. In an embodiment, the apparatus includes an access tube defining a central lumen and a retention portion disposed at a distal end of the access tube. The retention portion is reconfigurable between a first configuration of reduced lateral extent and a second configuration of increased lateral extent. A trocar is moveably disposed within the central lumen of the access tube. The access tube is movably disposed within a central lumen of an overtube. In an embodiment of a method of the present invention, the method includes the steps of inserting the trocar and access tube through a body wall of a patient, where the trocar is disposed within the access tube and where a retention portion disposed at a distal end of the access tube is configured in a first configuration of reduced lateral extent. The retention portion is then configured in a second configuration of increased lateral extent. The trocar is removed from the access tube. An overtube is inserted around the access tube and through the body wall, where the access tube is received within a central lumen of the overtube and where the retention portion is received through a slot defined by the overtube. The retention portion is returned to the first configuration of reduced lateral extent. The access tube is removed from the central lumen of the overtube and the medical device is inserted within the central lumen of the overtube and through the body wall. The overtube is then removed.

16 Claims, 5 Drawing Sheets